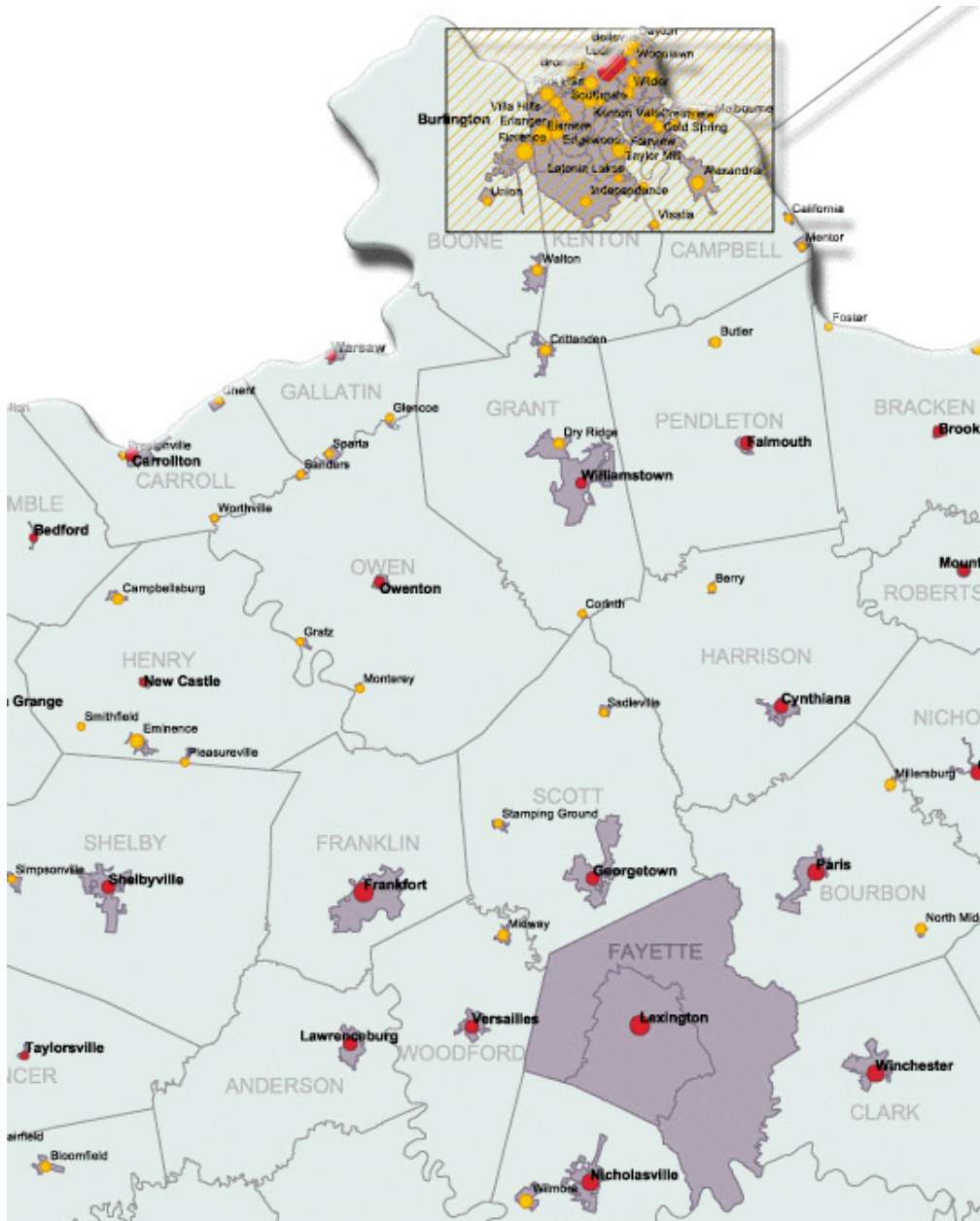# Corporate Boundaries Layer
A Proposed Data Attribute & Accuracy Standard
Commonwealth of Kentucky

Contents

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http://wris.ky.gov/wris/

Dataset Table Structure

*GIS Layer Containing Boundaries for the Incorporated Cities in Kentucky: **Corp_bnd***

The database item definitions for the Corp_bnd layer are provided below. This coverage has both a Polygon Attribute Table (PAT) and an Arc Attribute Table (AAT). The PAT stores basic information regarding the incorporated city such as its NAME, FIPS, CLASS, and so forth. The AAT stores information regarding each line segment that makes up an incorporated city's boundary. For example the local ordinance number and data regarding the Point of Beginning of the survey are stored in the AAT.

Common Items: The "common" items are highlighted below in yellow (rows 1-5) and should be included in all Polygon Boundary Layers.

Programmatic Items: The "programmatic" items are highlighted in green (rows 6-11). These database items support functions within the Secretary of State, WRIS, KYTC, and are found to be of interest to many users of this dataset.

Metadata Items: The "metadata" items are highlighted orange (rows 12-18) and should be included in all Polygon Boundary Layers. This is a crucial component of all datasets and should be regarded accordingly.

PAT - Corp_bnd.pat

Item Names	Item Width	Item Type	# of Decimals	Description
AREA	4	F	3	Area of Boundary - calculated by ArcInfo
PERIMETER	4	F	3	Perimeter of Boundary - calculated by ArcInfo
CORP_BND#	4	B		Internal ArcInfo ID
CORP_BND-ID	4	B		Internal ArcInfo ID
NAME	50	C		Name of Incorporated City or "Unincorporated" if not a part of the City (Source: Secretary of State) "City of" & ", Kentucky" are not acceptable
FIPS	10	I		FIPS code for the City (Source: WRIS)
COUNTY	35	C		County in which Boundary Resides (Source: Secretary of State)
ELEV	5	I		Elevation of City (Usually at Courthouse: US Feet above Mean Sea Level) (Source: USGS if not populated, please calculate and populate this item)
COSEAT	3	C		Is the Boundary a County Seat? Yes or No (Source: Secretary of State)
INCORP	10	C		Original Date of Incorporation (Source: Secretary of State)
CLASS	2	C		What Class is the Boundary? (Source: Secretary of State)
ADDNAME	6	C		ADD in which the Boundary is located
KYGEONET	100	C		Document ID on the KYGEONET (Value for City Boundaries: %7B2CE6BA66-709A-4CF3-BCDF-878D9942891F%7D)
AGENCY_CONT	45	C		What Agency is responsible for the last update to this Boundary?
CONTACT	100	C		Who is the Contact person for the last update on this Boundary?
LAST_UPDT	10	C		When was the last update made?
XY_SOURCE	40	C		Source of the Boundary Location (Source: Secretary of State)
XY_ISSUES	254	C		Any issues with the location of the Boundary.
COMMENTS	254	C		Any Comments about the Boundary

Common Items: The "common" items are highlighted below in yellow (rows 1-7) and should be included in all Arc/Line Boundary Layers.

Programmatic Items: The "programmatic" item(s) are highlighted in green (row 8). These database items support functions within the Secretary of State and the WRIS and are found to be of interest to many users of this dataset.

Metadata Items: The "metadata" items are highlighted orange (rows 9-17) and should be included in all Arc/Line Boundary Layers. This is a crucial component of all datasets and should be regarded accordingly.

AAT - Corp_bnd.aat

Item Names	Item Width	Item Type	# of Decimals	Description
FNODE#	4	B	3	From Node - maintained by ArcInfo
TNODE#	4	B	3	To Node - maintained by ArcInfo
LPOLY#	4	B	3	Left Polygon - maintained by ArcInfo
RPOLY#	4	B	3	Right Polygon - maintained by ArcInfo
LENGTH	4	F	3	In US Survey Feet (calculated by software)
CORP_BND#	4	B		Internal ArcInfo ID
CORP_BND-ID	4	B		Internal ArcInfo ID
ORD#	50	C		\<cityname>\<ordinance#> (no spaces) must match name of shapefile
ADDNAME	6	C		ADD in which the Boundary is located
KYGEONET	100	C		Document ID on the KYGEONET (Value for City Boundaries: %7B2CE6BA66-709A-4CF3-BCDF-878D9942891F%7D)
AGENCY_CONT	45	C		What Agency is responsible for the last update to this Boundary?
CONTACT	100	C		Who is the Contact person for the last update on this Boundary?
LAST_UPDT	10	C		When was the last update made?
XY_SOURCE	40	C		Source of the Boundary Location (Source: Secretary of State)
XY_ISSUES	254	C		Any issues with the location of the Boundary.
POB_SOURCE	40	C		What source was used to determine the Point of Beginning? (DOQ, DRG, Scanned Plat, KYTC Centerline, GPS, other)
POB_ISSUES	254	C		Any issues with the source of the POB?
COMMENTS	254	C		Any Comments about the Boundary

Layer-Level Metadata

The minimum requirement for layer-level metadata can be found at:

ftp://kygeonet2.ky.gov/kygeodata/standards/metaguide.pdf

This document, specifically Chapter 4, provides guidance necessary for preparing metadata regarding a dataset that will be published to the Kentucky Geography Network. All required fields indicated in the guidance must be completed for each boundary layer. It is highly recommended that ALL pertinent metadata be completed for each layer, not just the required fields for KYGEONET publishing. ERI's ArcCatalog 8.3+ is required for creating the required layer-level metadata and for publishing to the KYGEONET.

Positional Accuracy

First of all, it must be stated that the GIS Layer of Incorporated City Boundaries in the Commonwealth of Kentucky are: "A representation of annexations currently filed with the Secretary of State's Office in Frankfort." The dataset shall not be utilized for the purposes of property dispute settlement or other similar applications.

In terms of positional accuracy, there are two levels involved relating to the input and maintenance of corporate boundary information. First of all, surveys performed by Professional Land Surveyors (PLS) and stamped accordingly with that surveyor's seal should be accurate within their own space. That is, they have met a standard imposed by statute/regulation that says their survey has a certain level of accuracy. This level of accuracy can vary from a Class A to Class C depending on the type and scale of the survey. Generally, the acceptable error for a Class A urban (high$$) survey is 1 in 10,000 (1:10,000), Class B (typical) is 1:7,500 and Class C (rural) is 1:5,000. It MUST be assumed for the update of incorporated city boundaries that the calls included in a given annexation ordinance are the exact same calls (therefore no typos) that were recorded by the PLS and that it meets the accuracy standards for the given class of survey. Essentially, neither the ADDs who intitially input this information nor the WRIS Staff who will maintain it, has any control over the accuracy of the survey information provided for the project, the surveys' have an inherent accuracy unto themselves.

The second level of accuracy comes into play when the GIS user inputting the annexation data determines a "Point of Beginning" (POB) for the survey in Kentucky State Plane coordinates (US Feet). This is accomplished by utilizing one, or a combination of base layers (DOQ, KRG, KYTC Centerlines, . . .) to obtain the required coordinates. The accuracy of the coordinates derived from utilizing one of the aforementioned layers will be a function of the inherent accuracy of that base layer itself. For example, a POB derived from a DOQ would +/-20 feet and from a DRG would be +/-40 feet. Ideally, users should be "zoomed into" a certain scale before obtaining the POB. See the table below for guidance:

Base Type	Zoomed in no further than	Zoomed out no further than
DOQQ	1:500	1:6,000
KRG	1:1,000	1:12,000

Using the above guidelines should yield acceptable results. In some instances, if time and resources permit, a GPS observation of the POB could be taken to further enhance confidence in the location of the POB, and thus the placement of the annexation itself into Kentucky State Plane coordinate space.

Maintenance & Update Frequency

Long-term maintenance of this dataset will be driven by a cooperative agreement between SOS and WRIS. As annexations are filed at the SOS office, they will be copied and forwarded to the WRIS on a monthly basis. The annexations for that previous month will be input and the central

repository for this dataset will be refreshed accordingly so that users will have access to the most current and up-to-date information on a monthly basis.

Obviously the technical issues and logistics of long-term maintenance have been outlined, however, there is no commitment of funds from OGI or any other agency that would support the associated time and materials. An effort should be made to secure such funding for maintenance of this critical layer.

Archival and Distribution Data Format

The incorporated cities boundary layer is currently (September, 2003) being maintained/archived in an ArcInfo Coverage file format. It is planned that the layer be moved to a Geodatabase before the end of 2003. Any new boundary layers should be created in a Geodatabase format assuming the custodian has a licensed copy of ArcGIS 8.3+.

As for distribution, the incorporated city boundary layer is currently offered for download @: (http://wris.ky.gov/wris/mapgis/bnds.htm). The layer is offered as a Zipped ArcInfo Export file (*.e00) in five (5) coordinate systems: Kentucky Single Zone NAD 83 US Feet, Decimal Degrees NAD 83 US Feet, Kentucky State Plane South NAD 83 US Feet, Kentucky State Plane North NAD 83 US Feet, and UTM Zone 16 NAD 27. (Kentucky Single Zone and Decimal Degrees are the minimum for the standard). Shapefiles and Geodatabases are acceptable data file formats for distribution as well.

Known Issues

There are several known issues that arise when inputting calls from annexation ordinances.

1) Typos will be found in the annexation ordinances. If the plat or map is available, refer to it for calls that have been determined to be in error. It may be correct on the plat, but not in the description.

2) Some surveys just won't close. Instances will arise where the survey was in error and it just won't close. This needs to be noted in the metadata. Depending on where the problem with closure occurs, you may or may not be able to utilize the calls as provided.

3) Some surveys provided may not have enough or appropriate information for input using COGO based tools. These instances must be noted and all efforts to obtain the appropriate information should be made. If the annexation cannot be mapped, it must be documented accordingly.

Disclaimers

As previously stated, the results of this project are truly a representation of what is on file. With this being the case, it is important that all maps or data products that are compiled using this information have the following disclaimer present:

> *The incorporated city boundaries found on this site, or any associated map or data product, are a representation of boundary information provided by the Kentucky's cities in 1980 pursuant to KRS 81.045 along with boundary information on annexations and transfers filed by the cities with the Secretary of State pursuant to 81A.470. Not all boundaries are verified as accurate or current, and should not be utilized for purposes of property dispute settlement or other*

*similar applications. The boundaries shown may be superceded by Annexations,
Deannexations, Mergers, or other Transfers of Property that have not gone
through the mapping process.*